Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

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| In the Matter of | | |
| APPLICATIONS FILED FOR THE TRANSFER OF CONTROL OF SUBSIDIARIES OF MCV GUAM HOLDING CORP. TO DOCOMO GUAM HOLDINGS, INC. | ) | WC Docket No. 12-265 |

**COMMENTS OF**
**ONE ECONOMY CORPORATION**
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One Economy Corporation and One Global Economy have been engaged in creating digital inclusion blueprints for the territory of Guam and the Commonwealth of the Northern Marianas Islands under the National Telecommunications and Information Administration's State Broadband Initiative. One Economy works with its partners Broadmap and the New America Foundation to create the territories' segments of the National Broadband Map and therefore is well positioned to comment on the proposed transfer of control of MCV Guam Holding Corp. (herein referred to as MCV) to Docomo Guam Holdings Inc. (herein referred to as Docomo) as it pertains to broadband internet issues.

## ONE ECONOMY'S RESEARCH EFFORTS IN GUAM

Since October 2010, One Economy has been engaged in research initiatives aimed at understanding internet use, access, and barriers to adoption in Guam. The goal of these efforts is to develop recommendations for policymakers who wish to increase digital inclusion in Guam. To answer these questions, One Economy held a series of town hall meetings around Guam to garner community attitudes toward broadband internet. With the help of a local survey research

firm, Market Research and Development (MRD), One Economy also developed and carried out a representative-sample survey of over 1000 Guam residents. One Economy team members also interviewed key stakeholders, including government officials and representatives from all of the major telecommunications service providers in Guam.

The One Economy survey of internet use, access, and adoption in Guam was based on the October 2010 CPS Internet Use Supplement [1] but had additional questions specific to telecommunications in Guam. MRD conducted the survey, which was carried out in September 2011. MRD is a locally based survey firm in Guam with the capabilities of conducting the survey in English, Chamorro, and Tagalog.

The target population was all residents of Guam aged 18 and over. 1009 residents were selected in two stages: First, residences were randomly selected from the landline telephone number list; second, the resident eligible to be interviewed was selected by the randomizing question "most recent birthday procedure," whereby the surveyor asks the survey questions to the member of the household with the most recent birthday. For a sample of this size, the results are accurate to ±3.1%, at the 95% confidence level. The survey identified demographic characteristics that match known population parameters, indicating that the survey respondents represented a similar demographic cross-section to the population of Guam as a whole.

Once the data was collected and entered into a database, One Economy analyzed the data using the software SPSS. One Economy performed logistic and linear multivariate regression analyses, bivariate correlations, and cross-tabulations to better understand the patterns in the data and the relationships between key variables. Cross-tabulations and bivariate correlations show the overall distribution of the population in relation to certain factors, and also the general relationship between different variables. Multivariate regression analyses were also used to determine the relationships between relevant variables after controlling for (holding constant) other related factors, and also to assess the statistical significance of these relationships. For example, simple correlations may show that additional years of education and higher income are each directly correlated with broadband adoption in the home. However, since more education and higher income are themselves often related, it is difficult to assess whether it is income or education that plays a more significant role in determining whether a household adopts broadband. A multivariate regression analysis can show whether income or education has a larger and more significant impact on broadband adoption.

Detailed results of these analyses are available from One Economy upon request.

## SERVICE PROVIDERS AND INTERNET ACCESS IN GUAM

The results of these research efforts offer a number of important insights regarding the impact of telecommunications services on internet access and barriers to adoption in Guam.

[1] National Telecommunications and Information Administration - *Survey Instrument, October 2010 CPS Internet Use Supplement* http://www.ntia.doc.gov/data/SurveyInstrument2010.html Accessed 17 October 2012

Our survey results suggest that Docomo is not a major provider of home internet service in Guam. The market for home internet service in Guam is dominated by two major service providers, MCV and the Incumbent Local Exchange Carrier (ILEC), GTA Teleguam (herein referred to as GTA). Of the survey respondents with home internet, 48% stated they subscribed to GTA and 46% stated they subscribed to MCV. Only one respondent stated that Docomo was their primary home internet provider. The survey did not ask if households had a secondary internet provider.

While Docomo offers some of the same services that MCV currently offers, there are also important differences. MCV currently offers cable internet, cable TV, and home phone service in Guam. Like MCV, Docomo offers internet service and wire line phone service, but, unlike MCV, offers these services via wireless technology as well as wireless phone service to its customers.

Our survey results suggest that the availability of service is not a major factor in determining whether Guam residents use and have access to internet at home. Rather, multivariate regressions suggest that attitudinal and demographic factors are much stronger predictors of internet access and use. We find, for example, that the primary reason that Guam residents do not use the internet at home is because they are not interested in doing so. In terms of demographic factors, household income is the strongest predictor, being positively correlated and statistically significant in determining whether or not an individual used the internet. Factors that were statistically significant and negatively correlated with use of the internet were having less than a high school education, being retired, and being of non-Chamorro Micronesian ethnicity. Households with children were also significantly more likely to use the internet at home than similar households without children. All other factors proved to be statistically insignificant in determining internet use at home.

## GUAM CONCLUSIONS

It is our opinion that the proposed acquisition of MCV by Docomo will not have a significant impact on consumer choice or the cost of home-based Internet – more likely, it will bring down costs for reasons stated below. We support the acquisition for the reasons mentioned, while also recommending broadband adoption programs targeting seniors and recent immigrants to ensure that the acquisition best serves the public interest.

While there will be one fewer entity offering home internet service, Docomo has only a very limited presence in the home internet market. Thus, it seems unlikely that MCV's acquisition by Docomo will functionally reduce consumer choice, as the vast majority of consumers already use other providers.

Because MCV and Docomo offer different types of services in Guam, it is our opinion that the proposed acquisition could potentially reduce costs to consumers. After the acquisition of MCV, Docomo could potentially offer a quadruple play bundle of landline phone, home internet, cable TV, and wireless phone service, which would allow it to compete with GTA for those in the market for TV and mobile wireless internet. According to an FCC survey conducted in 2010,

consumers who purchase their internet through bundles pay $8.55 less per month for their service than those that buy their service as a standalone product.[2] Therefore the potential for bundling could produce significant savings for consumers as a result of Docomo's acquisition of MCV. While there would be one fewer landline phone provider in Guam, One Economy will not comment on landline service as the scope of our study with the NTIA pertains solely to high-speed internet and we did not collect data on landline telephony.

Given the results of the regression analyses of the survey data, One Economy also recommends that the Commission place conditions on the merger, in regards to supporting digital adoption in Guam. Targeted adoption efforts focused on training and awareness for older residents and recent immigrants from Micronesia would be most likely to increase broadband use and broadband adoption in the home. We have conducted many programs of this nature in the past, in which youth technology ambassadors are trained in technology and community service skills; they then train other members of their community on using computers and the internet. It is our opinion that if the merged entity were to support a similar program in Guam, utilizing young technology ambassadors to interest seniors and retirees who are currently broadband non-adopters, it would be successful in increasing broadband use and adoption in Guam.

## ONE GLOBAL ECONOMY'S RESEARCH EFFORTS IN CNMI

Since October 2010, One Global Economy has also been engaged in research initiatives aimed at understanding internet use, access, and barriers to adoption in the Northern Marianas Islands (CNMI). As with the research conducted in Guam, the goal of these efforts is to develop recommendations for policymakers who wish to increase digital inclusion in CNMI. To answer these questions, One Economy held a series of town hall meetings around CNMI (including the outlying islands of Tinian and Rota) to garner community attitudes toward broadband internet. One Global Economy also developed and carried out a representative-sample survey of over 1000 CNMI residents. One Global Economy team members also interviewed key stakeholders, including government officials and representatives from all of the major telecommunications services providers in CNMI.

Based on community input from a series of town hall meetings conducted in many areas throughout the Commonwealth of the Northern Marianas Islands (CNMI), One Global Economy created a finalized survey aimed at understanding factors that influence broadband access and use. The survey was based on the October 2010 CPS Internet Use Supplement[3] but had additional questions specific to telecommunications in CNMI. In order to carry out the survey, One Global Economy contracted with JSB Consulting, a Saipan-based survey firm which has collected data in CNMI for the US Census and for various local government branches. Surveys were conducted in person, in respondents' homes, by local surveyors who asked respondents questions in the respondents' preferred language.

Respondents were selected to be representative of the population of CNMI, which consists of three main islands: Saipan, Tinian, and Rota. JSB Consulting (JSBC), as required under its

[2] Horrigan, John B. *Broadband Adoption and Use in America – Results From an FCC Survey* http://transition.fcc.gov/DiversityFAC/032410/consumer-survey-horrigan.pdf Accessed 17 October 2012

[3] NTIA op. cit. http://www.ntia.doc.gov/data/SurveyInstrument2010.html Accessed 17 October 2012

contract with One Economy, selected a total of 867 Households (respondents) on Saipan, 100 on Tinian, and 100 on Rota, for a grand total of 1067 respondents. Although the task order under the contract called for 1000 respondents, JSBC selected and additional 67 households (respondents) for Saipan to ensure that all areas on the island were covered/represented. Selected sample dwellings that appeared vacant (upon survey period) were substituted with another occupied dwelling unit from the listing.

On the island of Saipan, JSBC used a stratified sampling approach to ensure that respondents were selected to proportionally represent the geographic distribution of the island's population. JSBC drew the samples by using the geographic boundaries assignments areas (AAs) and the block numbers within the AAs. The AAs and block numbers are the geographic numbers assigned by the U.S. Census Bureau and used in Censuses and Survey operations in the CNMI. The Central Statistics Division has retained and maintained the same geographic structure since its inception. On Saipan, a total of 328 assignment areas (AAs) out of 497 AAs were drawn. From these selected AAs, JSBC then randomly selected specific dwelling units in accordance with the population of those AAs. More dwelling units were drawn from AAs with larger populations, and fewer were drawn from those with smaller populations. Once a dwelling unit was drawn, it was then assigned to the field staff for surveying.

On Rota and Tinian, where only 100 sample subjects on each island were needed, the collection methodology was a straightforward random sample approach. Since there are only a little over 600 hundred dwelling units on each island, approximately 1 out of every 6 dwelling units was selected for inclusion in the sample. Tinian and Rota each have only two main villages; on each island 50 respondents from these main villages were selected for the sample. The collection method used was the "keep right" approach,[4] using the AA and block maps. This approach was used to ensure that the field staff does not cross over a certain boundary to cause a problem or any confusion in the process.

With each survey, surveyors noted the location of the respondent's dwelling according to JSBC's designated geographic areas. While respondents were also asked to say where they lived, this official designation allows for more uniform aggregation of the data according to legal boundaries.

Just as One Economy did in Guam, One Global Economy analyzed the data using SPSS. It performed logistic and linear multivariate regression analyses, bivariate correlations, and cross-tabulations to better understand the patterns in the data and the relationships between key variables. Cross-tabulations and bivariate correlations show the overall distribution of the population in relation to certain factors, and also the general relationship between different variables. Multivariate regression analyses were also used to determine the relationships between relevant variables after controlling for (holding constant) other related factors, and also to assess the statistical significance of these relationships.

[4] The "Keep Right" approach is when one is working on a block, (the smallest geographic unit in data collection boundary) the enumerator/survey takers keep themselves on the right side of the road/boundary from any designated starting point. This prevents any selected house from being missed or going out of the designated boundary.

Detailed results of these analyses are available from One Global Economy upon request.

## SERVICE PROVIDERS AND INTERNET ACCESS IN CNMI

The results of these research efforts offer a number of important insights regarding the impact of telecommunications services on internet access and barriers to adoption in CNMI.
In CNMI, Docomo and MCV offer very different types of internet service. In CNMI, Docomo actually falls outside the scope of the broadband mapping project because the internet speeds they offer are too slow for them to be considered a broadband provider. Docomo offers limited data service over what it deems a "2G" wireless network.

MCV does offer high speed internet service but has a smaller market share in CNMI than it does in Guam. In CNMI, 32% of survey respondents who identified an ISP identified MCV as their ISP, with the remaining 68% identifying IT&E as their ISP. However, it is possible this statistic overstates MCV's market share in CNMI. Over 100 respondents stated that they have DSL service, but did not identify IT&E (the territory's only DSL provider) as their ISP. This shows that many DSL customers may not have realized IT&E is their ISP, thus understating IT&Es market share. Virtually all cable internet users identified MCV as their ISP. It is likely that MCV's true market share is closer to 25% of CNMI broadband subscribers.

Our survey results highlight a number of important barriers to home internet adoption in CNMI. Multivariate regressions suggest that demographic factors strongly influence internet use and access. Not surprisingly, respondents who use internet at home tend to be younger and more educated than non-users. Respondents with college degrees, for example, are significantly more likely to use the internet at home than are respondents without college degrees. Internet users also have higher incomes than non-users, even when controlling for other factors such as education, age, and ethnicity.

Our analyses also emphasize the importance of geography and attitudes in shaping internet usage patterns in CNMI. Saipan and Tinian have nearly identical rates of internet use at home (69.5 and 70.7 percent, respectively). However, in Saipan, only 63.5% of residents indicated on the survey that internet in the home is "very important," while 78.6% of residents of Tinian consider it "very important." Furthermore, residents in Rota, who have significantly lower rates of internet use in the home (60%) than residents in Saipan, actually consider it more important to have internet in the home than do residents of Saipan.

Such evidence points to potential barriers to internet adoption. When residents consider internet use in the home very important but are not subscribing at the same rate, there is likely some factor, be it cost, availability, or other structural factors preventing them from subscribing to and adopting internet. We hypothesize that residents of smaller, more remote islands like Tinian and Rota see the utility of home-based internet access for connecting to online resources in education, entertainment, and commerce. Their desire for these services may also be magnified by their isolation, and by the limited availability of internet access in public areas (e.g., internet cafes, gas stations, etc.) on these islands. Some residents of Saipan, in turn, may see less importance of internet access in the home because they can easily go elsewhere to access it (e.g., to an internet café, a gas station, or their place of business). Despite this higher desire for internet, however, many of these residents do not access such services at home.

Our survey results suggest that cost is the most important factor preventing CNMI residents from getting the internet services they desire. Given the very low household incomes reported in CNMI, and the positive correlation between income and internet access at home, it is unsurprising that the primary barrier to internet adoption in CNMI is cost. Of those who stated that internet subscription is too expensive, the majority (73%) live in households with an annual household income under $25,000. However, non-subscribers across the income spectrum (even those earning more than $150,000 a year) reported that cost was an issue that kept them from subscribing. Thus, residents of all income levels view the cost of internet subscription in CNMI as very expensive and sometimes prohibitively so. Low income residents are more acutely affected than others by these cost barriers.

## CNMI CONCLUSIONS

Though there are distinct differences between Guam and CNMI, One Economy also supports Docomo's acquisition of MCV in CNMI, while recommending broadband adoption programs targeted at low-income households, especially in Rota and Tinian, to ensure that the acquisition best serves the public interest.

It is our opinion that the CNMI needs additional competition for broadband service because there are currently only two broadband service providers. However, the acquisition of MCV by Docomo will not affect the number of broadband internet providers because Docomo is not considered a broadband provider by the NTIA. Much like in Guam, the acquisition would allow Docomo to offer additional bundles of services to consumers, which could offer cost savings. Furthermore, any ISP in CNMI needs to purchase middle-mile capacity from IT&E, the owner of the sole undersea cable connecting CNMI to the rest of the world. A combined Docomo/MCV could potentially purchase more bandwidth capacity at a lower rate if there are economies of scale. If these savings are passed on to consumers, it would make the marketplace more competitive and affordable.

Additionally, if Docomo wants to promote digital inclusion and broadband adoption in CNMI, it should focus its efforts particularly on residents of Rota and Tinian. Residents there have a strong desire to access broadband in their homes but are not able to do so at the same rate as residents of the main island of Saipan. Programs undertaken by the Department of Education have distributed laptops to nearly every household with school-aged children. As a result, most households do not state that access to hardware is preventing them from getting online.

One Economy also recommends that the Commission place conditions on the merger, in regards to supporting digital adoption in CNMI. Targeted adoption efforts focused on training, affordability, and anchor institution connectivity would suit the interests of residents in CNMI. Especially in Rota and Tinian, the merged entity's efforts should focus on bringing low-income households affordable access, ideally in the home, but programs aimed at providing access at new community anchor institutions would also be effective. As in Guam, programs aimed at teaching technology skills to youths could have a trickle-up effect to their parents and elders, as evidenced by the higher rates of internet use in households with children.

## OVERALL CONCLUSIONS

It is our opinion that the acquisition of MCV and Docomo will not significantly decrease competition for residential or enterprise-level broadband internet in Guam or the Northern Marianas Islands. The two companies offer different products and services that are not substitutes for one another with the exception of landline phone service. The acquisition may put the merged company in a better position to compete for customers with the ILECs in each market, as they will be able to offer a broader range of services than either company could alone. This could potentially reduce costs to consumers and lead to a more competitive market for broadband internet in the territories.

To ensure that the public interest is served by approving this transaction, One Economy and One Global Economy recommend that the acquisition of MCV be approved with stipulations that Docomo invest in digital inclusion programs, similar to those outlined above, in order to reach those that do not use or subscribe to broadband. In Guam and CNMI, there exists a discernible digital divide; residents who are low-income, elderly, have less than a high school education, or are of non-Chamorro Micronesian descent are much less likely to use the internet and subscribe to broadband than the rest of the population.

In our opinion, Docomo should promote broadband adoption through corporate social responsibility programs in order to help low income residents get online and become broadband subscribers. These efforts should focus on affordable access in the home (especially in CNMI) and youth IT training programs in both territories aimed at creating digital ambassadors to the community at-large.